

Blending Maneuver and Attrition

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There are not more than five musical notes, yet the combinations of these give rise to more melodies than can ever be heard. There are not more than five primary colors, yet in combination they produce more hues than can ever be seen.

—Sun Tzu, *The Art of War*

FOR THE BETTER PART of two decades there has been a growing debate concerning the relative merits of maneuver or attrition as a style of warfare. Enthusiasts on either side of the debate seem to be calling for, indeed precipitating in, a divorce of the two—despite the fact that a pure example of either style of warfare is rare. Maneuver and attrition are inseparable forms of warfare. While one form may dominate a phase of a campaign, the purposeful use of both characterizes all successful modern operations. It is not an argument about the preeminence of one form of warfare over another; strategic and operational aims dictate the appropriate choices of design. No campaign should be two separate struggles—maneuver and attrition must be blended into a harmoniously effective, integrated whole.¹

Maneuver Warfare

In the earliest recorded manuscript on the theory of war, Sun Tzu described an indirect approach to warfare, which emphasized maneuver to secure victory through positional advantage over his enemies. Less well read, and almost completely overlooked where maneuver is concerned, is the work of Antoine Henri Jomini. Two of his four fundamental principles of war were, “throw by strategic movements the mass of an army, successively, upon the decisive points of a theater of war, and also upon the communications of the enemy as much as possible . . . [and] maneuver to engage fractions of the hostile army with the bulk of one’s forces.” Central to Jomini’s theory was control over three

sides of the zone of operations, which he generally saw as a rectangle. Controlling the zone of operations through maneuver would force an opponent to fight at great disadvantage, face capitulation or abandon the zone altogether. Perhaps more widely known are B.H. Liddell Hart’s writings after World War I, in which he described the indirect approach and its true aim of strategic advantages.²

Hart once described maneuver as much like a torrent of water: “If we watch a torrent bearing down

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on each successive bank . . . in its path . . . it first beats against the obstacle, feeling and testing it at all points. Eventually, it finds a small crack at some point. Through this crack pour the first dribblets of water . . . The pent up water on each side is drawn towards the breach, wearing away the earth on each side . . . widening the gap.”³ This description has often been portrayed as the use of the “surfaces and gaps” method and is often quoted to describe maneuver in its application. Hart’s key idea is gaining a positional advantage so strong that it would ensure a positive decision.

Maneuver warfare, as a style or method of conducting war, focuses on defeating the enemy while minimizing battle to that necessary for achieving established aims. Avoiding main sources of strength (surfaces) in favor of attacking enemy weaknesses (gaps) or apparent vulnerabilities, maneuver warfare

seeks instead to place the opponent at great disadvantage in time and space. Maneuver concentrates combat power to gain positional advantage relative to the enemy center(s) of gravity and to shatter enemy morale and cohesion. By using surprise, shock

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and momentum, maneuver seeks to impose the attacker's will on the opponent. This sustained moral threat to the enemy aims more at his psychological state of mind than the mass of his forces. Ideally, a precipitous withdrawal leads to the most favorable moment for a maneuver style of war—when the opponent quits the field. Maneuver war concentrates less on enemy intentions and more on those actions desired of him.⁴

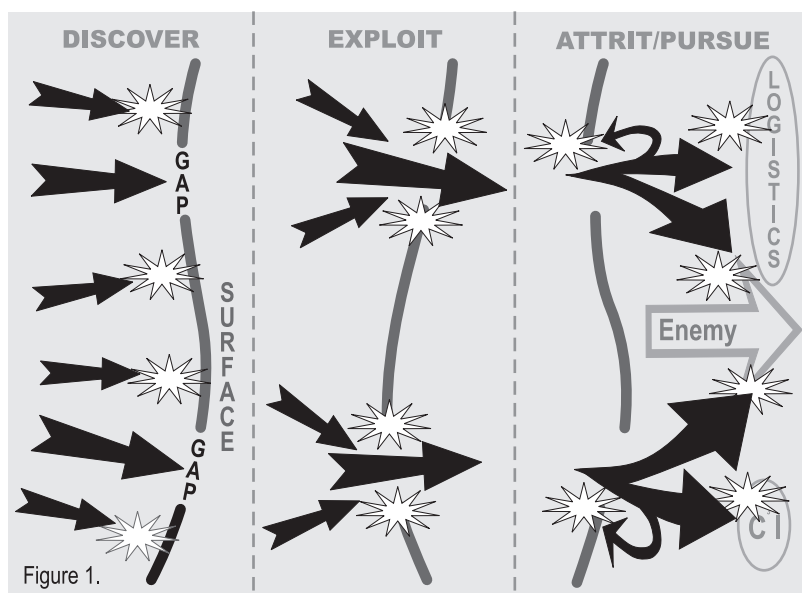
Maneuver warfare in application. Sun Tzu described the maneuver concept in simple ideas: “The Army’s disposition of force avoids the substantial and strikes the vacuous. Water configures its flow in accord with the terrain; the army . . . in accord with the enemy.” In this fashion Hart’s “expanding torrent” would feel its way across the surfaces or strongly defended areas to discover the gaps or

weak points. As gaps are discovered the torrent pulls the water behind through the gap expanding to its original size and form. By this method, maneuver warfare’s reconnaissance discovers the strongly defended areas and the weak points or gaps. Attacking units pour through the gaps in an exploitation of the weakness, pulling other units away from the strengths or surfaces of the enemy and through the gaps as well. The attacker then consummates decisive action by crashing through the opponent’s support structure, taking him from the rear or the flanks. Multiple thrusts offer more opportunities for the attacker, increasing the effects of surprise and chaos and rapidly debilitating the psychological state of an adversary. But it is a competition of time, and one minute is more valuable today than during WWII because of information exchange and firepower precision, volume and rate. The typical WWII tank crew required an average of 17 rounds to kill another tank at about 700 meters. Today a single round hit on the move at 2,400 meters is a high probability.⁵

Tempo of operations. Maneuver tempo is the pace of moves such that an opponent has no time to execute his plan or make rational choices for timely action. A substantial advantage in tempo makes opposing intentions less relevant and their plans increasingly meaningless as time passes. Therefore, resources can be oriented more on what actions are desired of an opponent and much less on his intentions since they will be overcome by imposed events. By moving faster than our foe can react and reacting faster than he can counter our actions, we

systematically unravel his ability to react or move at all. But tempo does not directly equate to speed alone. It is a relative advantage found in the relationship between opposing forces. Strength, advance rates, firepower and vehicle speed do not directly translate into tempo. Napoleon advanced on Moscow in 1812 at about 14 kilometers per day, faster than the German approach during Operation *Barbarosa* at 10 kilometers per day.⁶

Operating at a higher tempo than an adversary is achievable two basic ways: cycle faster than the opponent or degrade his cycle to slow his operating



tempo. A faster tempo widens the margin of relevant opposing action with each cycle until the enemy finds himself increasingly behind in a bad situation facing an ever-accelerating pace.⁷

Psychological Target—

Morale and Cohesion

Throughout history the pursued have taken disproportionate losses relative to the pursuers. In numerous cases in ancient battles, the victor produced tens of thousands of casualties with comparatively small losses. And this was at a time when each casualty had to be produced by blade, bludgeon and arrow. Throughout his writing in “Ancient and Modern Battle,” Ardant du Picq clarifies this defeat phenomena as the result of pursuit after one side’s morale and cohesion break under the strain of close combat and they attempt to flee the battlefield. Maneuver warfare maintains that defeat is essentially a psychological phenomenon, in which the human dimension is of critical importance. The powerful combination of fear and isolation convinces an opponent of his defeat. Shattering an adversary’s morale and cohesion is achieved by three primary methods operating singularly or in combination: preemptive actions, dislocation and disruption.⁸

Preemptive actions are taken to disarm or neutralize the opponent before the fight ever begins in earnest. Traditional preemptive moves have not been incremental but overwhelming and very surprising. Preemption emphasizes tempo, boldness and resolve to gain success with limited fighting. Erwin Rommel’s audacious 1941 advance into Cyrenaica well illustrates how preemption and maneuver warfare achieve results with minimal battle, confirming Ardant du Picq’s long-standing assertion that, “even by advancing you affect the morale of the enemy.”⁹

Dislocation is an avoidance stratagem, which carries evasion a step further by rendering an adversary’s strength irrelevant through positional or functional approaches. Positional dislocation forces irrelevancy upon an adversary by physically removing him from the decisive point or placing the decisive point in time and space where his strength cannot influence the action. Feints to draw opposing strength away from decisive points are good examples of positional dislocation. While not fully successful, the Japanese illustrated this form of dislocation in their attempt to draw the US fleet to the Aleutians and away from Midway and the Sho Plan. Functional dislocation causes an opponent’s strength to be inappropriate or neutralized. Hanoi’s use of

Grenadiers of Napoleon’s Imperial Guard in column of march, circa 1913-1914.



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insurgency and guerilla war functionally dislocated the nuclear strength of the United States at the strategic level, and their focus on American resolve dislocated the military strength committed to limited objectives in Vietnam. Displacing the decisive point is often achieved through deception, as occurred in Operation *Fortitude*, which focused German attention on the Pas de Calais and away from Normandy. Then too, positional dislocation is often achieved by maneuver, as in the successful German turn of the Maginot Line during the 1940 Flanders Campaign.¹⁰

Attacking gaps disrupts opposing forces and their supporting structure. High-tempo operations, bolstered by surprise, attack vulnerable rear areas containing support structure, communications and unprepared forces. The object is to create confusion, fear and panic that paralyze an opponent’s ability to react, while enlarging his vulnerabilities. Certainly the opening campaign into Poland by Germany in 1939 is a well-studied classic of maneuver

warfare and the effects of disruption. Equally disruptive was General Douglas MacArthur's landing at Inchon, which cut the North Korean Army's lines

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of operation and caused its precipitous withdrawal.¹¹

The immediate threat of battlefield injury and death incites greater fear than distant firepower. When the close personal threat is consummated by surprise, the attacker reduces his casualties by half, while the unprepared opponent has his casualty rate doubled or tripled based on the shock alone.¹²

Attrition Warfare

Attrition warfare is theoretically rooted in the concepts of Carl von Clausewitz who concluded in *On War* that, “Destruction of the enemy forces is the overriding principle of war . . . battle is the one and only means that warfare can employ.” While this excerpt does not represent Clausewitz's philosophy, the central idea of annihilation springs from his work. This form of warfare seeks to systematically and progressively destroy the enemy's capacity to

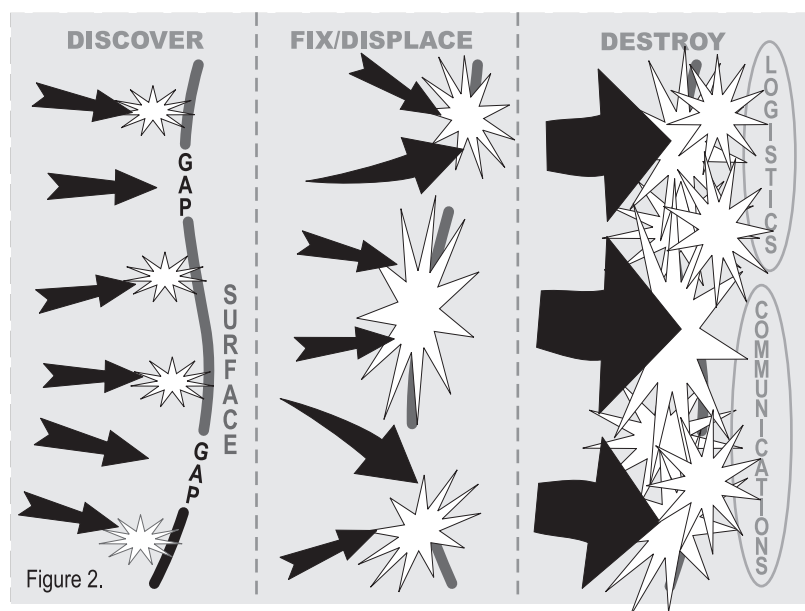
wage war. Whether in rapid attempts with overwhelming force or in protracted form with small forces, the process destroys crucial resources faster than the adversary can replace them. Opposing capabilities to wage war become targets to destroy effectively and efficiently. Since WWI, effective and efficient destruction generally means using firepower. Levels of destruction are the critical measure and lead to or equal defeat of the opposing military mass when the adversary loses the will or capacity to continue. Attrition warfare pursues battle to destroy enemy war-making capabilities.¹³

Attrition in application. Indeed, when attrition warfare is mentioned, many today see visions of WWI battlefields: trenches for hundreds of miles constructed in depth, intermingled wire obstacles, thousands of craters and a landscape as bereft of life as the bodies that cover it. But attrition warfare has not always resulted in stalemate. Examples include Montgomery's defeat of Rommel in 1942, Operation *Drumbeat* by German U-boats off the American coast and the resulting Allied counter in the Battle of the Atlantic. Although destroying the enemy is attrition's aim, destruction's relevance to political aims and military strategy measures its success.

Attrition warfare seeks to fix the adversary at a specific time and space or bring him to a chosen time and space to destroy his forces faster than he can recover the losses. In the “surfaces and gaps” construct, the emphasis shifts to the surfaces, which represent mass that must be destroyed. This method of warfare seeks maximum feasible engagement of

an adversary. A general attrition cycle requires discovering opposing force concentrations, fixing those forces and preventing their movement, or displacing them to make them more vulnerable. Overwhelming destructive resources then engage the opposing force in as much depth and simultaneity as resources allow. Destruction comes from direct and indirect lethal fires, as well as nonlethal methods such as electronic and psychological operations.

The tempo of destruction. To “out cycle” an opponent through attrition depends on the ability to produce and place into action more equipment and



trained people than the enemy can field, while concurrently reducing his capability to recover the destructive effects of battle. New technology in attrition equation can also overcome an adversary. In this regard, the Battle for the Atlantic provides a telling example as the Allies fielded increasingly effective technology and forces, which eventually drove German submarine forces from the zone of operations. However, German U-boats won the initial stages of the struggle for the Atlantic in a classic battle of attrition.

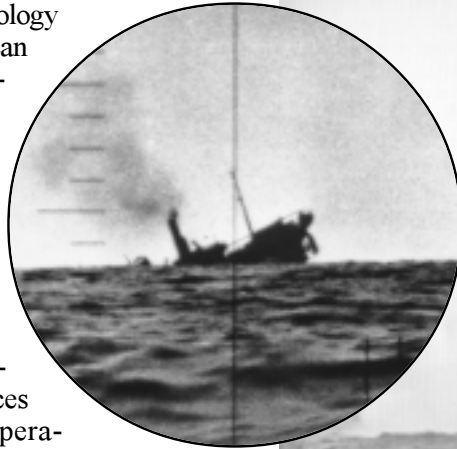
The U-boats sank 187 warships and 4,786 cargo ships with 21 million tons of supplies. During the first four months of 1942 six U-boats sank 137 ships in the Atlantic waters and another 170 ships in the Caribbean area from March to July. To clarify the scale of this destruction, two transports and one tanker lost more materiel than 3000 bombers could have destroyed on the battle field.¹⁴

From 1939 until 1943 Axis submarines sank over 2000 ships with few losses, but the turning point came in 1943. The Allies sank more submarines that year than in the previous four years of the Atlantic struggle. Improved radar and sonar, increased air cover, additional escort ships and the secrets of Ultra together brought the enemy submarine force to culmination. Eventually, Axis forces would lose 782 submarines and 32,000 submariners in the attrition battle for the Atlantic. Circumstances determine whether or not attrition warfare is an appropriate choice.¹⁵

Physical Target - Concentrations, Capabilities and Potential

Attrition warfare emphasizes the destruction of the physical potential of war making. Historically, this focus has included a nation's human and industrial resources and supporting structure. Human resources, manifested in strategic and operational leadership, military force concentrations and the

A depth charge explodes astern of the HMS *Starling* in the North Atlantic. The floats on top of the depth charge racks are Foxer decoys for use against acoustic homing torpedoes.



Imperial War Museum. (Inset) National Archives



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civilian population, are destroyed or incapacitated either simultaneously or through a sequence that relates to campaign aim. Industrial capacity is likewise paralyzed if not destroyed altogether. Attrition warfare seeks to remove the ability to wage war or break the will of an adversary to continue war, using three primary approaches singularly or together in a gradual or overwhelming way: punishment, denial and decapitation.¹⁶

Punitive approaches typically orient on the national leadership and the population to shatter

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morale and thereby end the war when the adversary sues for peace or the population overthrows the reigning government in favor of peace. Punishment can be weighty and overpowering, such as the strategic bombing of Germany and Japan in WWII, or applied gradually to continue the risk over time, which is well illustrated by the US approach to North Vietnam.¹⁷

The denial approach focuses on the military forces in the field and their supporting industrial and logistic structure. This approach is characterized by

destruction of military forces, their reserves, the transportation systems and the industries producing replacement equipment and materiel. Frequently used elements of this approach are direct support to land forces, interdiction within the battlespace and strategic operations beyond the battlefield. Denial operations have mounted, particularly as precision guided munitions increase the tempo and rate of destruction. It is conceivable that a nation's war-making capabilities could be utterly destroyed so quickly that industrial capabilities would be dislocated because they are not relevant to the decision.¹⁸

Seeking to destroy the strategic leadership's ability to direct the war effort is a decapitation approach. Isolating key leaders or the entire leadership body from their military forces and the population and destroying their means of communication typify this approach. This counter-leadership method aims at strategic paralysis, shattering the opponent's will to continue or confusing the direction of the war ef-

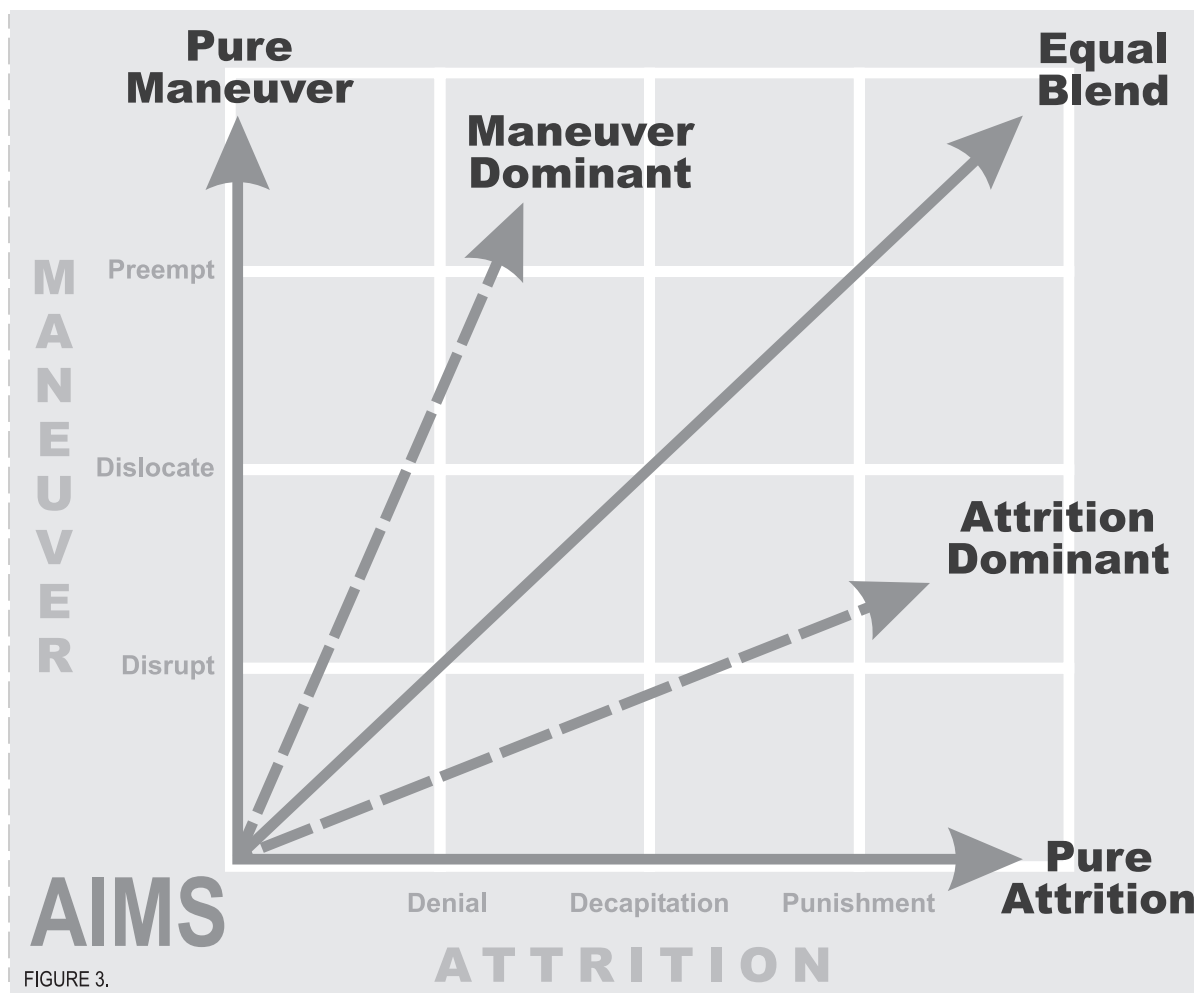


FIGURE 3.

fort to create major vulnerabilities. A well-known example of this stratagem is the death of Admiral Isoroku Yamamoto, one of the more brilliant Japanese strategic leaders, shot down by P-38s over Bougainville in April 1943. Also, the recent decapitation effort against Iraq in 1991 destroyed 44 strategic and operational leadership facilities and 156 communications sites.¹⁹

Blending for Harmony

A harmoniously integrated whole *blends* the strengths found within both forms of warfare (see Figure 3). Each must be allowed to govern the campaign as necessary, based upon the situation, the strategic and operational aims and the advantages the chosen method of warfare offers relative to those aims. Maneuver without the facilitating benefit of firepower devolves into movement with drastically reduced moral and psychological impact; an impact that maneuver seeks and upon which its success depends. Likewise, attrition through lethal and non-lethal abilities without the direct moral, psychological and physical threat of maneuvering forces is rarely decisive. Attrition targets an opponent's physical mass, but its destruction does not always equate to defeat. The choices must be rational, not based on a favorite method or weapon but on the method's merits relative to the circumstances.

Both forms of warfare must be allowed to govern the campaign as necessary based upon the situation, the strategic and operational aims and the advantages the chosen method of warfare offers relative to those aims. Maneuver without the facilitating benefit of firepower devolves into movement with drastically reduced moral and psychological impact. Likewise, attrition without the direct moral, psychological and physical threat of maneuvering forces is rarely decisive.

Integrating both forms maximizes synergy and overall effectiveness. When surfaces *and* gaps are appropriately attacked, and the adversary suffers the effects in mind *and* body. Rational choices can be made concerning the predominant method. The perfectly equal balance of maneuver and attrition is unlikely, but scale features of both forms could logically be chosen with one form being predominant for an entire campaign or phase of an endeavor. As Sun Tzu so eloquently pointed out centuries ago, the two forms of warfare are not exclusive but infinitely complementary. Even though "it takes two to tango," for harmony and balance, someone has to lead. **MR**

NOTES

1. David J. Andre, "The Art of War-Past, Present, Future," *Joint Forces Quarterly* (Autumn 1995), 125-126; and Martin van Creveld, Kenneth S. Brower and Steven L. Canby, *Airpower and Maneuver Warfare* (Air War College, Maxwell Air Force Base, Alabama, 1994), 226.
2. Crane Brinton, Gordon A. Craig and Felix Gilbert, ed. Edward M. Earle, *Makers of Modern Strategy* (Princeton, NJ: Princeton University Press, 1973), 87; Sun Tzu, *The Art of War* (Mechanicsburg, PA: Stackpole Books, 1987), 15-40; and Baron De Jomini, trans. CPT G.H. Mendell and LT W.P. Craighill, *The Art of War* (Westport, CN: Greenwood Press Publishers, 1862), 63.
3. Captain B.H. Liddell Hart, "The Man in the Dark Theory of Infantry Tactics and the Expanding Torrent System of Attack," *Journal of the Royal United Service Institute* (February 1921), 13.
4. Richard Hooker, Jr., ed., *Maneuver Warfare an Anthology* (Novato, CA: Presidio Press, 1993), 3-8; and Robert Leonard, *The Art of Maneuver* (Novato, CA: Presidio Press, 1991), 18, 61 and 181.
5. Sun Tzu, *The Art of War*, trans. Ralph D. Sawyer, (Boulder, CO: Westview Press, 1996), 71; Leonard, 48-52; Robert H. Scales, *Firepower in Limited War*, (Novato, CA: Presidio Press, 1995), 238.
6. Leonard, 16 and 51; Van Creveld, Brower, Canby, 3-4; and COL Trevor N. Dupuy, *Understanding War - History and Theory of Combat* (New York: Paragon House Publishers, 1987), 150-161.
7. Hooker, 9; Leonard, 16 and 58; and Van Creveld, Brower, Canby, 3-4, 238.
8. Leonard, 19-20, 28-30; and Hooker, 144.

9. COL Ardant Du Picq, *Battle Studies, Ancient and Modern Battle*, trans. COL John N. Greely and MAJ Robert C. Cotton (Harrisburg, PA: Military Service Publishing Co., 1946), 124.
10. R. Ernest Dupuy and Trevor N. Dupuy, *The Encyclopedia of Military History*, (New York: Harper & Row Publishers, 1986), 1110 and 1111, 1057 thru 1059, 1146 and 1147, 1179; and Leonard, 66-68.
11. Leonard, 73-76.
12. COL Trevor N. Dupuy, *Attrition: Forecasting Battle Casualties and Equipment Losses in Modern War* (Falls Church, VA: Nova Publications, 1995), 71-77.
13. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. (Princeton, NJ: Princeton University Press, 1976), 258 and 577.
14. Eric Larrabee, *Commander in Chief* (New York: Simon & Schuster, Inc., 1987), 175-182.
15. James F. Dunnigan and Albert A. Nofi, *Dirty Little Secrets of World War II* (William Marrow and Co., Inc., 1994), 271. The information found within Figure 1 associated with this paragraph also comes from the work of Dunnigan and Nofi.
16. Robert A. Pape, *Bombing to Win-Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 58-86.
17. Ibid, 58-66.
18. Ibid, 69-78.
19. Ibid, 79-85; and Clayton James, *The Years of MacArthur*, Volume 11, 1941-1945 (Boston, MA: Houghton Mifflin Co., 1975), 321.

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